The Halifax Amateur Radio Club



REFLECTOR



2050 Hammonds Plains Road Hammonds PlainsNS B4B 1P3

August 2020, Volume 81 Number 8

club web site is www.halifax-arc.org

Due to the fact that we cannot pick up mail or hold an in person meeting all members of 2019 and 2020 will receive the Reflector

HARC Club Station phone number - 902-490-6421

Executive

President - Brian Allen, VA1CC 489-4656 basailor@eastlink.ca

First V.P. – Jason Ingraham, VE1PYE 292-9924 VE1PYE@bellaliant.net

2nd V.P. - VACANT

Secretary - Roger Stein, VA1RST 403-3738 burch.craft@gmail.com

Treasurer - Bill Simm, VA1ALW williamrham@live.ca Member-at-Large: -John Bignell johnmbignell@gmail.com

Station Manager: - Don Trotter, VE1DTR don_trotter@hotmail.com

Past President - Bill Elliott, VE1MR 865-8567 bowser.elliott@ns.sympatico.c

Director Emeritus - Bill Elliott, VE1MR 865-8567 bowser.elliott@ns.sympatico.ca

Committees/Offices/Prime Contacts

Government & Media Relations - Gary Murphy VA1GGM, 461-9416

garygmurphy@gmail.com

OSL Bureau Mgr - Murray MacDonald (VE1BB) twomacds@ns.sympatico.ca EMO Coordinator - David George, VE1AJP 466-8723 dgeorge@dal.ca EMO Trailer coordinator – David Musgrave, VE1EDA 435-4333 ve1eda@rac.ca Reflector editor - Lvnn Bowser, VE1ENT 865-8567 bowser.elliott@ns.sympatico.ca Reflector Hardcopy Dist. - Jeremy Fowler, VE1JHF 240-4302 ve1jhf@gmail.com Membership - Jim Calvesbert, VE1PPA jim.calvesbert@gmail.com Reflector electronic Dist.; Jim Calvesbert, VE1PPA jim.calvesbert@gmail.com Web site content Manager - Brandon Fowler, VE1BMF bmfowler95@gmail.com Basic ham course - Jason Ingraham, VE1PYE 292-9924 VE1PYE@bellaliant.net 2020 Fleamarket Chair – John Bignell, VE1JMB 902-223-1945 johnmbignell@gmail.com 2020 Field Day Coordinator John Bignell, VE1JMB 223-1945 johnmbignell@gmail.com Safety Officer - Pat Kavanaugh, VE1PK ve1phk@rac.ca VA1MMA Project Manager - Dick Grantham, VE1AI rgrantham@ns.sympatico.ca

NSARA Director - Bill Elliott, VE1MR 865-8567 bowser.elliott@ns.sympatico.ca Honorary Legal Counsel – Paul Radford, VE1ARH

Non Club Contacts

RAC Atlantic Director - Dave Goodwin, VE9CB ve9cb@rac.ca RAC Section Manager - Dave Hull, VE1HUL d.hull@ns.s

RAC Section Manager – Dave Hull, VE1HUL d.hull@ns.sympatico.ca RAC Assistant Director for HRM Scott Wood, VE1QD, 823-2191 ve1qd@rac.ca

Take-15 Net Controllers
This will be the rotation. We need more net controllers.

If you want to join, let Bill Elliott, VE1MR, know.



August 16 Peter VE1WIN
August 23 Gary VA1GGM
August 30 Bill VA1ALW
Sept. 6 Cam VE1BIT
Sept. 13 Peter VE1WIN
Sept. 20 Gary VA1GGM

Please send any issues (broken links, missing information, etc.) found on the H.A.R.C. Website to our Website Manager, Brandon Fowler, VE1BMF, at

bmfowler95@gmail.com

Deadline for submissions to the September 2020 Reflector is Saturday Sept. 5, 2020 All phone numbers must be preceded by area code 902 when dialling, unless otherwise indicated

The August, 2020 General Meeting of the Halifax Amateur Radio Club will be held Wednesday, Aug. 19 – the method (virtual) and time will be sent in an e-mail. Check your e-mail for details as the date approaches. Also check the web site for any other updates. Currently there is no access to Station 50.

Due to the global pandemic most if not all events have been cancelled. See page 2 for coming events. You can also read about possible alternatives for some events in the following pages.

Proofreading is a dying art, wouldn't you say?

Astronaut Takes Blame for Gas in Spacecraft

That's what he gets for eating those beans

GENERAL INFORMATION



Sunday evenings: TAKE-15 NET at 8:30 PM

CLUB REPEATERS:

VE1PSR - 147.270 MHz + TX=82.5

VE1PSR/UHF - 444.350 MHz + VE1PSR/6M - 53.550 MHz -

access and TX tone 151.4 Hz

VE1HNS - 146.940 MHz - TX=82.5

PACKET: VE1NSD 145.050 MHz LAN NODE We thought we should submit our Field Day and Canada Day results for the Reflector. I admit to feeling a bit guilty not doing them with HARC, but KCARC was so much more convenient! For Field Day Al, V01NO & AVARC joined us, and Bob RSM submitted our combined individual efforts to the ARRL. (See table.) Propagation was poor on Saturday and after great effort we didn't have a single OSO on either 10 or 15m. However, the propagation gods smiled on Sunday and 10 & 15 opened enough so we got about 40 Qs on each. We all used commercial power, except Fred + Helen who broke in their new generator. We all ran 100 W or less and our usual home antennas. One useful outcome of this "COVID-19" FD was that we each got to see how well our home station could perform in the Field Day chaos!

Fred, VE1FA

Our Canada Day 2020 contest effort was held at Fred + Helen's house in Canard, NS (near Canning). It was our first "near-normal" contest this year, with Bob VE1RSM & Wayne VE1BAB joining us in our shack. Bob contacted Dave VE9CB, and got us VE1RAC for our contest call. As usual,, Bob & Wayne were responsible for all the CW contacts, and Fred + Helen for the phone contacts. QSB was very strong. Often even 20m would temporarily close down. 10m & 15m never did open, despite lots of calling & listening. Being old codgers, we closed down a bit after midnight, and re-started about 8AM. Right at the end 40m suddenly opened to VE3 to 6- land and we finished in a pileup. Despite lots of listening for the rare ones, Yukon eluded us! Despite being deep in the propagation doldrums, we were really pleased to score 381,282 points, our second-best finish ever, over many years with much better prop!

As always, it was fun running into old friends, especially Gary VE3XN. It's not a contest if we don't work Gary!

From RAC President Glenn MacDonell, VE3XRA Registration now available for RAC Basic Course: Summer 2020

https://www.rac.ca/rac-online-basic-amateur-radio-course-registration-summer-2020/

In response to the Covid-19 crisis, Radio Amateurs of Canada is once again offering an online Amateur Radio course so that individuals can obtain their Amateur Radio Operator Certificate with Basic Qualification while continuing to practise social/physical distancing.

The course will once again be conducted with the assis-

Field Day 2020* at Kings Co.ARC & Annapolis Valley ARC**

KCARC	Class	QSOs	Mode	
Bob VE1RSM	1D	525	CW/SSB/DIG	
Wayne VE1BAB	1D	232	CW	
Fred & Helen VE1FA	1E	876	SSB	
Jim VE1JG	1D	265	CW	
Barry VE1QY & Art VE1GG	1D	75	FT-4 & FT-8	
KCARC Total Q's		1973		
AVARC				
AI VA1AVR	1B	639	SSB	
Doug VE1JG	1D	27	RTTY	
AVARC Total Q's		666		
Combined Total QSOs		2639		
Total QSO points		6510		

- *All entries worked from the ham's home, except Art VE1GG, who worked at Barry's home.
- ** Because there were no links between loggers at different stations there were 339 inter-station dupes

Band	Mode	QS0s	Pts	Sec	Pt/Q	
1.8	CW	10	68	4	6.8	
1.8	LSB	2	20	2	10.0	
3.5	CW	20	108	3	5.4	
3.5	LSB	53	388	5	7.3	
7	CW	59	378	4	6.4	
7	LSB	279	1872	10	6.7	
14	CW	141	650	6	4.6	
14	USB	584	3546	9	6.1	
21	CW	15	94	3	6.3	
21	USB	2	20	2	10.0	
28	CW	1	10	1	10.0	
28	USB	1	10	1	10.0	
50	CW	1	10	1	10.0	
50	USB	1	10	1	10.0	
144	FM	1	10	1	10.0	
Total	Both	1170	7194	53	6.1	
Score:	381,28	2				
1 Mult	= 22.1	Q's		F	Rescore	

"Money can't buy you happiness, but it does bring you a more pleasant form of misery." Spike Milligan

Halifax Information Radio 107.7 FM in the event of emergency becomes a communications arm of EMO.

tance of the Annapolis Valley Amateur Radio Club (AVARC) of Nova Scotia.

This course prepares students for the Innovation, Science and Economic Development Canada (ISED) Basic Qualification Level Operator Certificate exam to operate on allocated Amateur Radio frequencies.

Course material pertaining to all topics covered in the course syllabus will be provided to all registered students. Students must have a copy of the Canadian Amateur Radio Basic Qualification Study Guide provided by Coax

(Continued on page 3)

PRESIDENT'S MESSAGE for August, 2020

I am so glad to be back from a very hot and exceptionally dry Northern New Brunswick. As a note I was there for my daughterès wedding which happened in the open under clear skies and 28 C heat. Refreshments were welcome after the ceremony.

The club is gradually opening up in that we are now allowed executive meetings there under strict safety precautions. It will be that way for some time in the future. Down the road we will be back in the club for our general meetings and things will appear normal however we will be wearing masks as there is no real space to social distance in that room.

There was no mail received this month: Murray did receive a couple of boxes of QSL cards and has promptly got them out to the membership. A lot of work on his part and has received many very positive comments for the great job he is doing and of course our thanks to him for working through trying times. Murray-VE1BB.

When things get better we have a work party to put together for Cowie Hill's antenna farm where there are antennas to check, replace and test. Don Trotter is taking the lead on that project with support from Bill-VE1MR and myself along with some help from you. More to follow on this as a zoom boom needs to be booked through Don Mosher to help this go a lot easier. The building at Cowie Hill is being assessed by Don Mosher and his team for possible repair or replacement.

The executive are in discussions concerning 1) RAC; 2) new accounts for surplus equipment: 3) a new membership account; 4) web site development and management; 5) remote station access strategy: and other club related topics. We are busy even though we are not physically at the club.

I truly hope everyone is enjoying this hot and somewhat dry summer. This is great weather for antenna projects that get you out into the fresh air with exercise a bonus. I have to re-install my HF and VHF antennas on the deck before it gets to hot on the back side of the building.

Take care everyone, enjoy your refreshments on your decks, the beach or where ever you happen to be. 73 for now.

73 - Respectfully, Brian Allen- VA1CC, PRESIDENT- HARC

RAC Basic Course: Summer 2020 (Continued from pg.2)

Publications. For more information please visit the RAC Study Guides webpage.

It is essential that all students have the necessary equipment and bandwidth capable of taking the course – at least a tablet or PC and a DSL broadband connection.

<u>Date</u>: The course will start on Thursday, August 20 and will finish on Thursday, October 29.

<u>Time</u>: Classes will be held on Thursday evenings from 6 pm to 8:30 (1800 – 2030) Eastern Time (1900 – 2130 Atlantic Time) and Sunday afternoons 1 pm to 3:30 pm (1300 – 1530) Eastern Time (1400 – 1630 Atlantic Time).

<u>Cost</u>: The registration fee for the course is \$50 plus GST/HST. The cost of the Basic Study Guide is extra and an order link will be provided upon completion of payment.

<u>Instruction</u>: The course will use the GoToMeeting web-based service. Students will receive instructions on how to log on to the online sessions once they have registered for the course.

The course instructor is Al Penney, VO1NO. Al, first licensed in 1977, has been active in many areas of Amateur Radio including contesting, DXing, VHF/UHF weak signal, satellites, emergency communications & DXpeditioning. He has served as the President of six different Amateur Radio clubs in both Canada & the United States and currently

chairs the International Amateur Radio Union (IARU) Region 2 Band Planning Committee. Al has taught the Basic Qualification Amateur Radio Course since 1994.

Other Amateur Radio Courses:

Amateur Radio Basic & Advanced Qualification courses are also now being provided both online and in person by Canadian Amateur Radio Clubs & organizations. Please visit the Amateur Radio Courses webpage for more information at:

https://www.rac.ca/amateur-radiocourses/

Glenn MacDonell, VE3XRA, RAC President & Chair

If Jimmy cracks corn and no one cares, why is there a stupid song about him?

On second thought, I'll take the stairs

Note: 'Point. Click' indicates a time lapse or a dialogue/text change

I have a friend about my age who got into amateur radio only a few years ago. Like many of us, he was enthusiastic about the technology and Intrigued with DX.

I showed him my station and we talked endlessly about gear. Later I helped him put up a simple wire antenna. Then, when his license arrived, he dove straight into FT8 and didn't look back. Within days, he'd worked all states, then DXCC. He'd bag a few rare ones over a light lunch, then pat his laptop on the back and congratulate his software app for its near-mythical ability to extract weak signals out of noise.

Within weeks, he'd mastered everything there was to know about this glorious new hobby.

Point. Click.

In this new world order, those of us who took the longer, slower path to ionospheric enlightenment -- and who still occasionally enjoy making waves by hand -- often fail to explain why.

I had failed to explain it to my friend. Even as hints of his boredom crept in, creating an opening, the best argument I'd made for trying CW was that he could do it without a computer. Coming in a weak second was the notion that CW was the original digital mode. For obvious reasons, I didn't bother with the classic argument about CW's signal-to-noise advantage over SSB.

I had all but given up.

Then, in a moment of delayed clarity, I decided on a different approach. I invited him to a weekday brunch. A bit of an escape. He willingly took the bait.

On the appointed day, arriving at his workplace, I bypassed the lobby's

glistening elevators and climbed the four flights of stairs to his office. I insisted we take the stairs down, too.

"Why?" he asked. "And how'd you get up here so fast?"

I pointed out that I always chose stairs, when possible. That's why I wasn't out of breath. We hustled down, jockeying for position, and emerged on the ground floor invigorated by the effort.

"So, where are we going?" he asked. We'd been to every overrated twenty-dollar burger venue at least twice.

I replied that we'd be going someplace we'd never tried. My kitchen.

When we arrived, I put him to work chopping onions and broccoli and squeezing oranges while I whipped eggs into a froth and grated Swiss cheese. We ate our omelettes outside, in full sun and a cool breeze.

"What's for dessert?" he asked. "Isn't there a frozen yogurt place a two-minute drive from here?"

I had something else in mind. Back in the kitchen, I handed him a water bottle, then strapped on a small pack I'd prepared earlier.

We walked a mile or so through my neighborhood, admiring the houses' varied architecture, ending up (as planned) at a local park festooned with blackberry bushes. The most accessible branches had been picked clean, but with teamwork and persistence we were able to gather several large handfuls of fat, ripe berries, which we devoured on the spot.

We'd been poked and scratched but didn't care.

"Doesn't brunch usually end with champagne?" he wondered aloud, admiring his wounds.

Not this time. I pulled out two bottles of craft beer that I'd obtained from a neighbor in trade for repairing his ancient home stereo. Carlos had spent years crafting an American pilsner to die for, sweating every detail, including iconic, hand-painted labels.

My friend accepted the bottle, then tried in vain to remove the cap. Not a twist-off.

"Opener?" he said.

I handed him a small pocketknife, an antique without specialty blades. He soon discovered it could not be used to remove the cap directly. He looked at me with a bemused expression, no doubt wondering what I had up my sleeve this time.

I pointed out that we were surrounded by white oaks, a species known for its hard wood. He got the message, smiled, and began hunting. Within seconds he'd collected a small fallen branch. I watched as he used the knife to fashion a few inches of it into a passable bottle opener. We popped the caps, toasted his newfound skill, and traded stories of our misspent youths.

"Oh, one more thing," I said.

I pulled a KX2 out of my pack, along with two lengths of wire. Of course he knew everything there was to know about Elecraft, and me, so he wasn't surprised when I also pulled out the rig's attachable keyer paddle. We threw one wire in the closest tree and laid the other on the ground.

He didn't have to ask whether I'd brought a laptop.

We listened to CW signals up and down 20 meters, which was open to Europe at the time. As he tuned in each station, I copied for him using pencil and paper. He'd learned Morse code, but only at very slow speeds.

After making a contact, I set the internal keyer speed to 10 words per minute and dialed power output to zero, for practice purposes, then showed him how to use the paddle. He smiled as he got the hang of it.

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Sending the full alphabet was a challenge, but he got there. The KX2 decoded and displayed his keying, providing confirmation.

We'd blown through his allotted lunch break by a factor of three, so it was time to go. We coiled up the antenna wires, packed up, and walked back. As I drove him back to his employer, we made plans to get together again for a weekend hike.

I could have just dropped him off, but we went back into the lobby together. Out of habit, he stopped in front of the elevator; then looked up.

"OK," he said. "I get it. This CW thing. It's slow, it's hard to do well, and it takes years of practice."

"Like hunting for your own food, or carving your own tools," I added.

"Or cooking from scratch. Or brewing your own beer. Building your own radio. And you use more of your senses. Not just your eyes, but your ears. Your sense of touch."

I nodded. Listening. Feeling. That was the radio I'd grown up with.

"Of course, it's harder to work DX with CW than with FT8," I reminded him, playing devil's advocate.

"Is that what matters, though?" he asked.

A longer discussion for another day.

"Your call," I said.

He gripped my shoulder and smiled, then reached toward the elevator's glowing, ivory colored button, framed by polished brass.

The path most taken.

Point. Click.

"On second thought," he said, "I'll take the stairs."

Wayne Burdick,N6KR Co-founder and CTO Elecraft



The problem with the gene pool is that there is no lifeguard.

The Britt Fader QSL Bureau - UPDATE!!!!

With the lockdown of the club station by the HRF fire department, the Bureau had ceased to function as normal. I have recently received two shipments of QSL cards from the incoming bureau weighing in excess of fifteen (15) pounds indicating a large number of cards to be sorted, filed, and shipped to members of the bureau having sufficient funds on file. A number of us do not want QSL cards bur fail to let the ham on the other side of the conversation know that they do not exchange QSL cards. Others do not want to receive QSL cards but fail to let me know and as a result they pile up causing extra work and the use of extra resources. If you do not want to receive cards, let someone know! Others have cards on file, often from the 1990's and have no money on hand. Once the station is open and we are able to gain admission, all cards over three (3) years on file and with insufficient funds to cover the mailing out of same, they will be destroyed. If you wish to know if you have sufficient money on deposit, do not hesitate to contact me and I shall be able to provide you with the up to date amount on file. My email address is

twomacds@ns.sympatico.ca

If you wish to deposit additional funds to your account, that can be arranged either by mail to my address;

G. Murray Mac Donald, 97 Bantry Ave, Stillwater Lake, NS, B3Z 4P5 or by e-transfer.

Thanks to Fraser (VE1WO) I was able to access the bureau computer and should be able to update the records. I am in the process of sorting the many cards that came in with the latest two deliveries. These can and will be sorted and, if sufficient funds are on file, they will be mailed out to you. There are a large number of cards on file either because there are not sufficient funds to mail them out or the recipient has not given an address. In addition, we have had numerous cards returned due to a failure of the call holder to advise of a change of address. These too will be destroyed in due course.

I am pleased to say that I have been contacted by a number of hams who have been out of the hobby and now are looking to return.

Jim Massara, N2EST, once wrote "A QSL card is something you can hold in your hand. QSL cards aren't for every ham, of course, or even for every QSO. But if you want to make a friend via amateur radio – there's nothing better". Also, it has been written "that sending a QSL card is the final handshake of a contact".

QSL cards are sent with the expectation that once received, one will be returned. I think maybe we should revisit our own thoughts as what the QSL card may mean to those who have taken the time & expense of sending us one.

Murray MacDonald VE1BB/VE1MMD, Bureau Manager

Paranoia has reached absurd stages...

I sneezed in front of my laptop and the anti-virus started a scan on its own It may take a village to raise a child

But it takes a winery (or a distillery) to home school one.

The Atlantic Amateur
Ham Radio for the Atlantic Provinces
www.atlanticamateur.ca

The RAC website is at www.rac.ca

Halifax Amateur Radio Club Minutes of the Virtual General Meeting of July 15, 2020

- 1. Welcome to the HARC virtual monthly meeting for July 15, 2020: The virtual meeting was called to order by President VA1CC Brian at approximately 1920.
- 2. Acceptance of the Agenda: A request was made to accept the verbal agenda as presented by VA1CC Brian, no negative comments or additions were received, request accepted.
- 3. <u>Roll Call</u>: Approximately 25 members via GoToMeeting were visible on screen.
- 4. Report of any <u>Silent Keys</u>: A list of Silent Keys is elsewhere in the Reflector and can be viewed at https://www.westcumb.ca/maritime-silent-keys-2020
- 5. Approval of Minutes of June 17, 2020 as printed in the Reflector: Corrections were provided, a motion was made by VE1MR Bill to approve the amended minutes, seconded by Helen VE1YL, the motion carried.
- 6. <u>Correspondence</u>: Brian VA1CC gained access to Station 50 via the courtesy of Don Mosher. A membership renewal and QSL Bureau return was all that had arrived since the last check.
- 7. President's Report: VA1CC Brian reported that he received word from approximately 8 operators that had participated in Field Day. (Secretary's note: as of the July 28 log submission deadline, 12 logs are on record with ARRL as submitted as Halifax ARC).

Brian reported that he will be away in New Brunswick from July 18th until August 20 for his daughter's wedding. He will have his phone and laptop PC in case you need to contact him.

Brian administered a Basic exam on June 12 at the Food Court of the Halifax Shopping centre, a good place to maintain the required social distancing and be able to give the exam.

Brian gave an update on Silent Keys, the link is listed above.

Fraser VE1WO added that Rich VA1CHP's wife Sharon had passed away. The Club sends condolences.

The Club is looking for two positions to be filled. They are Membership Chair, VE1PPA Jim Calvesbert wants to step down, and Safety Officer VE1PK Pat Kavanaugh. Pat is having some health priorities and needs to step down. Please contact Brian if you are interested in either position. Both fellows will help you with the transition.

Brian reports there is a good chance that Station 50 may be open for the Executive meetings and the Handshake exercise soon as in August-September and of course following necessary Covid protocols. Information on Access card re-authorization remains to be passed along to HARC members. Brian is waiting on word from Don Mosher, HRM EMO director.

8. Treasurer's Report: VA1CC Brian read Bill VA1ALW's report, the income from the period of June 1 to June 30 was in the amount of \$614.97. Expenses for the same period came to \$0. The opening June balance was \$11,405.63 and the closing June balance for the period was \$12,020.60. A motion was made by VA1CC Brian to accept Bill's report. Jason seconded the motion, the motion carried. Bill VA1ALW reported later that the etransfer password is HARC2020.

9. Committee, Event and Special Projects Reports:

1. <u>Station Manager Report</u>: Don, VE1DTR reported investigation of webinar platforms, GoTo Meeting has worked well. Zoom's least expensive package has the voting function and works well, too. A

report will be made at the August Executive meeting for action. The Remote station will require that operators fill out an application to be enrolled in the system. The complexities are being worked out by Don, Fraser and Greg.

- 2. <u>RAC</u> <u>affiliation renewal</u>: Bill VE1MR stated that the renewal information is on the RAC website, this will be discussed and completed at the August Exec meeting.
- 3. <u>Club Website</u>: There is a potential for the website to be hosted by the RAC server. RAC has extended the offer to all amateur radio clubs looking for a solution. More investigation is in progress.
- 10. <u>Round Table</u> Member News: the brief sharing of important personal news:

Roger VA1RST asked if anyone knew Martin (Marty) Smith VE1AUA in Dartmouth as Roger had worked Marty back in 1966 and had a confirming QSL. It was suggested to contact Dick VE1AI.

Jason VE1PYE reported that RAC will start another Basic on-line class in August. See RAC website for details.

Also volunteer examiners and students will arrange to meet for administering the exam. Fred VE1FA reports that he has fielded exam requests in the valley as well.

Brian made 181 CW contacts in the IARU contest, best DX was ZL1A!

- 11. <u>50:50 Draw</u>: None
- 12. Motion for Adjournment: VE1PYE Jason was recorded as motioning to adjourn, meeting adjourned approx 2100 hours.

Respectfully submitted by Roger Stein, VA1RST, HARC Secretary

The location of your mailbox shows you how far away from your house you can go in a robe, before you start looking like a mental patient. Avast blog Tips & Advice
The dark web: a primer for the rest of
us by Chandler Givens,
16 June 2020

Understanding the difference between the public web, the deep web and the dark web.

What is the dark web?

Most of us tend to think about the web as a single destination, available through our browsers on our laptops and phones. But over the years it has evolved into 3 very different parts: the clear or public web, the private or deep web & the darknet or dark web. In this primer, we explain their differences, what kinds of information can be found in each part, and why you need to protect yourself when you access this content. As you can tell by the fact that we list different terms, there is no hard and fast division among the three pieces. Here is a good explainer published by the FBI back in 2016, which is somewhat outdated but a useful starting point.

The public web is the web that most of us are very familiar with: the sites that are run by the major dot com businesses, the SaaS sites that provide our software for running common office applications and email, and so forth. This is the data that freely flows between our computers every day. These sites are searched and recognized by Google and other search engines. If you have a web security tool, this is the part of the web that is their focus. Most of the security products give the other parts of the web short attention, if at all.

But when we move to the private web, we come to a part of the online world that isn't easily indexed by the search engines or covered by security tools. This includes private Intranets, instant messaging (IM) services, chat rooms, discussion forums and private databases that are behind various firewalls or that have no public Internet footprint. Until a few years ago, most hackers didn't focus on using these areas to gain footholds into business networks but that has changed. As IM usage has taken off

(with Microsoft Teams, Slack and other services), adversaries have created tools that can leverage the lack of much built-in security across these services. This makes IM a prime target of opportunity for phishing-like attacks in particular. As an example of the increasing threats that can be found coming from private web sources, just look at the number of Slack add-on security tools.

Finally, there is the dark web. This portion of the online world is much more difficult to get our hands around. Like the private web, these sites take pains to not appear on search indexes, mainly because some of them offer illegal goods and services, including drugs, stolen data (such as credit card numbers) and hacking tools. Not all its content is illegal, but there is a lot that could be questionable.

Examples of this dark web content includes:

Places where you can hire hackers to break into networks

Drugs and other illegal items

Lists of username/password pairs taken from data breaches

Tutorials on how to use computing tools, especially those that relate to hacking, malware writing, exploitation and code cracking

Financial data on companies that could be available from a public site or data breaches.

Compromised sites and suspicious domains for sale

Source codes of "undetectable" malware that are for sale

Directories of command and control servers for hire for launching DDoS and other attacks

URLs of malware file-sharing sites Censored content of all kinds

To access the dark web usually requires a special browser called Tor. Most estimates peg its popularity to about five percent of the total Internet content and traffic. They use the naming conventions of .onion domains instead of .com or .net. For example, this link will take you to a list of hard-to-find printed books. Even

Facebook has its own presence on the dark web. Why would legitimate businesses have these sites? They can be used to help their developers understand how to use them, and how to protect their data. You'll notice that these sites have very convoluted domain names: their owners want to make it harder to track and find them, unlike the public web where your brand name is often synonymous with your domain name.

Most of the denizens of the dark web are scammers & swindlers, looking to separate you from your money and your data. These scammers are constantly on the move, trying to stay ahead of law enforcement and vigilantes who are trying to expose their scams. The dark web sites themselves are also on the move as they can be common targets on denial of service attacks. This means that a lot of material is outdated. And as you might expect, the coins of this realm are cryptocurrencies such as bitcoin that make it hard to know exactly whom you are doing business with.

Why does the dark web matter to ordinary web users?

Let's look at two different perspectives for why ordinary web users should care about the dark web. There is the interest for cybersecurity professionals, who have three basic concerns: first, it is useful to know if your business brand has been mentioned there. This could harm your reputation or confuse your potential customers with someone who is trying to sell fake goods and services. It could also indicate that some data has been leaked from your company.

A 2nd reason is that these dark web mentions could be examples of an early threat warning before malware is detonated across the public web. Because there are so many threat actors that operate on the dark web, you can find out what they are planning and what malware they are testing before the attacks are seen anywhere else.

(Continued on page 8)

The dark web: a primer for the rest of us (Continued from page 7) Finally, the dark web is getting darker. It is increasingly occupied by professional criminals and not just script kiddies or society misfits. The exploits are getting more sophisticated and malware obfuscation tools and techniques are being increasingly seen and traded.

Even if you aren't a cyber professional, you should still be concerned about the dark web, because your private data could exist on one or more of the stolen credential databases that are being traded online.

What can you do about it?

There are a variety of information sources that can be used to investigate whether your private data has found its way to the dark web. Troy Hunt's HaveIbeenPwned.com keeps track of millions of logins across years of collecting them from various breaches. It is a good first place to start and you can set it to notify you when your email account has been found in a new collection.

Avast's BreachGuard is another tool that can alert you if your information is involved in a breach. It scans the dark web daily looking for your information and alerts you if it is found. It also contains tips on how to keep yourself protected and ways to find out if your information is out there

How to protect your personal data online

Given that a lot of dark web content has to do with your credentials, a good place to start thinking about how to protect yourself from ending up on these databases is to strengthen your login authentication. The first thing to do is to eliminate your own password reuse. Yes, it is convenient to have the same password for multiple sites, but, that is giving criminals an easy way to compromise your identity. There are a couple of tools that can be useful here, including a password manager (such as Lastpass and 1Password) and a smartphone authentication app (such as Google Authenticator & Authy).

Second is to minimize your data footprint. Here are a few examples:

Do you really need to provide your birthday to anyone on social media? Sure, it is nice to get e-greetings at that time of year, but this just makes it easier for hackers to masquerade as you. Your real-life friends will know your birthday. If you must provide a date, use something that is obviously false like January 1 or April 1.

Don't fill out every field in a form that requests private information. Eg., do you really need every airline & travel site to have your passport number on file?

Think about using a payment processor that can anonymize your credit card data. Eg., services such as Google and Apple Pay can make it harder to intercept your data when checking out at an e-commerce site.

As you can see, protecting your data from reaching the dark web is not a simple process, and will require a series of careful steps.

VE1HNS Maintenance

On the evening of August 5, 2020 a work party of Rob, VEIKS. Bill, VE1MR and Jason, VE1PYE met at the VE1HNS repeater site. Rob wanted to check out the repeater and associated hardware since no maintenance had been done in over 4 years. Rob had noticed some problems, the controller

Rob, VE1KS and Bill, VE1MR working on VE1HNS.
Photo by Jason, VE1PYE



time was drifting, there was noise appearing on the repeater from time to time and he wanted to see if these problems could be cleared.

On arrival Rob removed power from the repeater rack and moved the rack out from the wall so we could work behind it while Bill and Jason brought in tools and test gear. We removed the controller and opened it so the DS1286 timer IC could be replaced - hopefully replacing this IC would solve the time drift problem. While Bill was replacing the IC Rob and Jason were setting up the test equipment.

Jason tested the VHF duplexer while Rob swept the antenna to make sure there were no problems on the antenna, the antenna tested fine. Jason found the VHF duplexer was fine with no problems. While Rob and Jason were doing their tests Bill put the controller back together and reinstalled it in the rack. Bill also installed a rack plate with an AC power bar mounted on it in the bottom of the rack. Then the repeater was powered up and the receiver sensitivity was checked and found to be extremely sensitive so we decided to increase the squelch setting hoping this would stop the noise appearing on the repeater from time to time. After the squelch was set to our satisfaction we tested the power output and found it was lower than expected so we increased the power output to what it was when installed 4 years before. Next we tested the audio level setting of the repeater, the UHF link to the Maycom network and the UHF link to the IRLP node and all were fine. While Rob set the controller time Jason went through the UHF duplexer for the Mavcom link and found it needed touching up which he did.

We made sure everything was reconnected then moved the rack back into it's original position. After final testing we locked the site up and headed home. At the time of writing this (one week later) everything seems to be working fine, no noise has been reported on the repeater and the time seems to be staying stable.

Greetings all, Sending this out to all my contacts from the old Maritime Amateur website.

I have been asked by many why there are no updates to the Silent key page on the Atlantic Amateur. The Silent Key page on the old Maritime Amateur website was the second most active page.

Cory Nickerson VE1DFZ has been very busy with his job and does not have the time to look after the page.

I have decided to add a new basic Silent Key page to our club website westcumb.ca and have started posting Maritime Silent Keys starting with 2020.

I've been receiving info from Roger VE9RV, and also the

Old Timers website

http://oldtimersclub.byethost31.com/?i=1

You will notice the names that are in BLUE have links to their obituaries.

If anyone has any obits that they know about from this year and would like to see posted on the page please send me the info and I will get it on ASAP.

Starting now all obits I receive will be posted immediately on the webpage and on the WestCumb ARC Twitter feed @WestCumbARC

Thanks for reading, Everyone stay safe.

https://www.westcumb.ca/maritime-silent-keys Jim Langille VE1JBL

□ Same □ I wou □ I wou	address as last year ld like newsletter as PI you sav ld prefer to have the ne	□ New address OF E-Mail (Please e the Club signification ewsletter mailed to \$10.00 to the lease	e note by taking cant mailing ar o my home at a regular memb	nd printing costs) an additional cost ership fee structu	ine of			
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Fees □ Full N	Member, must be a lice	nsed Amateur (\$3	80.00)*	☐ Associate memb	per (Non Voting) (\$20.00)			
☐ Family memb	pership (one newsletter) (\$30.00)* + \$20	0.00* each addi	tional person.* A	mount submitted <u>\$</u> .			
The membership year is from January 1 to December 31. All members receive the newsletter, which is also available on the HARC website.								
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Payment Options ... In addition to mailing a cheque to the Club mailing address along with the application form, or paying at the January Club meeting, we have set up an electronic money transfer process.

Go to the H.A.R.C. Website's membership page at http://www.halifax-arc.org/pages/membership.html for more details.